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ABSTRACT

A 3-day conference brought together health and education experts to explore responses to adolescent health problems and to suggest ways to implement the recommendations put forward in "Fateful Choices: Healthy Youth for the 21st Century," by Fred M. Hechinger. Conference participants identified a number of adolescent health problems and the areas where solutions could be found. Effective teaching, especially when educators and health professionals cooperate, can give children and young adolescents the kind of information that helps them make sound judgments about leading healthy and productive lives. Information, knowledge, and the skill to make intelligent decisions are essential antidotes to foolish, misleading advice from uninformed peers or the lore of the street. Many existing barriers to health care can be addressed through accessible services targeting youth. A number of successful programs were highlighted, with the majority in urban areas. Alcohol, drugs, nicotine, and violence are other problems facing adolescents that can be addressed through education and programs targeting youth. Ensuring adolescent health will require the cooperation of the media and the concerted efforts of public and private sectors. Although this is expensive, the costs are insignificant when compared with the costs of neglect. (Contains 21 references.) (SLD)

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ADOLESCENT HEALTH

A GENERATION AT RISK

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AMERICANS ARE DEEPLY concerned about rebuilding the country's crumbling infrastructure. In the public mind, that means shoring up bridges, resurfacing roads, building mass transit, and revitalizing factories. Such concerns are legitimate, but they overlook the human part of the infrastructure: the young people on whose sound minds and strong bodies the nation's future health and power depend. Without healthy new generations, efforts to rescue the country from decline and decay will fail.

Today, that human infrastructure is at serious risk of collapse. Substantial numbers of America's children and adolescents are badly housed, badly fed, and badly educated. Many — affluent and poor alike — grow up with insufficient parental nurture and guidance. Without belittling the crucial, initial task of dealing with infants and young children, we focus here on that other age of great promise and great risk: early adolescence. It is at that threshold between childhood and the transition to young adulthood, approximately between the ages of ten and fifteen, that many fateful choices must be made, and teenagers need sympathetic help to make them.

These are years of great changes in the human mind and body. Puberty is a time of sexual awakening, of questioning and exploration, of a search for greater independence, and of the inevitable but often painful need to abandon old personal ties and forge new relationships. This places adolescents at the crossroads of decisions that may change their lives for better or for worse. Teenagers quite naturally seek new freedoms, but they also need adult understanding and guidance.

Not all the steps young teenagers take are irreversible. Not all of their mistakes need be fatal. Much immature experimentation leaves no permanent scars or can be corrected. And yet, some dangerous behavior can, and too often does, establish habits that place young minds and bodies at serious, often permanent, risk. Some of those habits turn into addictions; others directly endanger physical and mental health; in the worst instances, they put an end to life itself.

While many adolescents emerge from these turbulent years in good health, physically, mentally, and emotionally, too many others — from seven to fourteen million — are at various levels of risk, victims of a false adult assumption that teenagers will automatically outgrow adolescent problems and that, in the interim, little can be done to help them.

Members of the Carnegie Council on Adolescent Development (CCAD) disagree with that dangerously defeatist attitude. They believe that much can be done and that adult America and its policymakers have a clear responsibility for constructive action.

Ever since the Council was established in 1986 as an operating program of Carnegie Corporation of New York, its mission has been to place the challenges of the adolescent years high on the nation's agenda. Composed of national leaders from education, law, science, health, religion, business, the media, youth-serving agencies, and government, the Council is chaired by David A. Hamburg, the Corporation's president. It aims to bring together the most advanced knowledge about the adolescent years, to support new exploration, and to chart a course for future action.

In June 1989, it published *Turning Points: Preparing American Youth for the 21st Century*, which alerted public and professional attention to the need for fundamental changes in the education of young adolescents in the middle grades. The report set in motion major reforms of the institutions variously known as junior high, middle, or intermediate schools.[1] Through follow-up

[1] All publications cited in this report are identified in *References* on page 16.

Rampant Confusion

"In this day, adolescence is a decade of life marked by the confusions rampant in our society between libertarianism and liberty, materialism and morality, peer pressure and parental guidance, and by a social and economic revolution that has given most adolescents absentee families, generations of parents and grandparents separated by geography, divorce, and irresponsibility. . . ."

— Joseph A. Califano, Jr. Crossroads conference

grants to state education authorities, known as the Middle Grade School State Policy Initiative, the Corporation has encouraged implementation of the Council's recommendations for giving schools of the middle grades a key role in developing fifteen-year-olds who are intellectually reflective, good citizens, productive and ethical members of their families and communities, and prepared for a lifetime of meaningful work. One of the reforms recommended by *Turning Points* and turned into practice by the Middle Grade School State Policy Initiative aims at establishing caring relationships between young adolescents and adults.

Underlying all the other prerequisites for the development of an adolescent at the threshold of successful adulthood is attention to health in all its facets. This, *Turning Points* stressed, calls for an intimate connection between education and health and for the creation of a health-promoting environment in middle grade schools.

In the year following the publication of *Turning Points*, the Council produced six working papers, among them, *School and Community Support Programs that Enhance Adolescent Health and Education* and *Life Skills Training: Preventive Interventions for Young Adolescents*, and sponsored a Corporation-supported book, *At the Threshold: The Developing Adolescent*.

These studies looked at the entire range of problems young adolescents face. And while they dealt comprehensively with education and human development, they put a special spotlight on issues of teenagers' health. By the mid-1990s, the Council concluded that poor health among adolescents had reached crisis proportions. Large numbers of teenagers today suffer from mental disorders, such as depression, that may even lead to attempted or actual suicide. Many lack proper nutrition and exercise; they abuse illegal drugs and alcohol and become addicted to nicotine; they engage in premature, unprotected sexual activity, made lethal by the new risk of AIDS; they are victims or perpetrators of violence.

The Council, spurred by the worsening crisis, authorized a project to bring together existing research, much of it Corporation supported, and to make it easily accessible to policymakers and the public at large. This led to the publication, in 1992, of a companion report to *Turning Points*, in the form of a book, *Fateful Choices: Healthy Youth for the 21st Century*, by Fred M. Hechinger, senior advisor to the Corporation.

In April 1992, the Corporation, with the Carnegie Council on Adolescent Development, held a national conference in Washington, D.C., called "Crossroads: Critical Choices for the Development of Healthy Adolescents." The three-day meeting brought together health and education experts, many supported by the Corporation, to explore responses to adolescent health problems and to suggest ways to implement the recommendations put forward in *Fateful Choices*.[2]

What the Conference Found

Some of the findings discussed at the conference were:

- Twenty percent of white adolescents, 50 percent of black adolescents, and 30 percent of Hispanic adolescents (ages ten to seventeen) live in one-parent families, many of them poor or near poor.
- By age sixteen, 17 percent of girls and 29 percent of boys have had sexual intercourse.
- In 1989, 67 percent of all births to teenagers occurred out of wedlock, compared with 30 percent in 1970.
- Between 1960 and 1988, gonorrhea increased four times among ten-to fourteen-year-olds.
- More adolescents before the age of fifteen are experimenting with illegal drugs and consume alcoholic beverages regularly, often taking five or more drinks in one session.
- American adolescents are fifteen times more likely than are their English counterparts to die as victims of homicide, and black males are at highest risk.
- Unintentional injury is the major cause of death among young people, mainly as a result of automobile accidents related to careless or drunk driving.

Many adults find it difficult to deal with adolescents and their problems. In his 1992 book, *Today's Children: Creating a Future for a Generation in Crisis*, David A. Hamburg wrote: "Adolescents have to navigate through a minefield of risks. . . . Early adolescents need attention from adults who can be positive role models, mentors, and sources of accurate information on important topics. They need to understand the biological changes of puberty and the immediate and long-term health consequences of lifestyle choices. They need to learn interpersonal and communication skills, self regulation, decision making, and problem-solving skills."

Yet many of these youngsters get too little help. As Lisbeth B. Schorr points out in her book, *Within Our Reach: Breaking the Cycle of Disadvantage*, and as Donald Cohen, a psychiatrist at Yale University, charged in *Fateful Choices*, even many physicians, who

[2] In December 1992, the Task Force on Youth Development and Community Programs of the Carnegie Council on Adolescent Development issued a major report, *A Matter of Time: Risk and Opportunity in the Nonschool Hours*, about the role of community organizations in the lives of young adolescents.

should be able to diagnose teenagers' problems and help them avoid dangerous behavior, prefer to ignore what they ought to recognize as calls for help. One reason is that physicians tend to prefer dealing with younger children because they are relatively docile, and with adults, many of whom are still conditioned to treat doctors unquestioningly as a higher authority. By contrast, teenagers like to challenge authority. They ask questions, argue, and expect answers. Dealing with them takes time, and for physicians time is money. Too many resent the time it takes to gain teenagers' confidence; some even avoid asking questions that might uncover a youngster's drift to alcohol and other drug abuse and to immature, unprotected sexual activity.

Susan G. Millstein, associate professor of pediatrics in the Division of Adolescent Medicine at the University of California in San Francisco, told the conference: "Studies of pediatricians and internists in training find that over 40 percent of them feel unskilled in areas such as diagnosing common medical problems that are typical in adolescence, evaluating adolescent psychosocial functioning, or counseling adolescents about pregnancy prevention. Inadequate training in areas critical to adolescent health care are reported by all of the other groups of health professionals as well."

The situation is further complicated by the fact that medical professionals, in part because of their training and the financing of health care, tend to be oriented toward curing disease rather than preventing it.

Perhaps there was a time when families played a greater part in protecting youngsters' health. Today, a great many families simply are not able to respond to teenagers' health-related needs.

At a time when "family values" still dominate much of the political rhetoric, the conference on adolescent health was reminded by Joseph A. Califano, Jr., of a warning issued by President Lyndon Johnson in 1965: "Perhaps most important — its influence radiating to every part of life — is the breakdown of the [black family] structure. For this, most of all, white America must accept responsibility. . . . Only a minority — less than half — of all [black] children reach the age of eighteen having lived all their lives with both of their parents."

Great social changes show that the problem has long since ceased to be confined to black families; it is an American dilemma and must be treated as such.

What Teaching Can Do

Even before young adolescents begin to chafe at the bit of adult authority, the educational process should prepare them for greater independent judgment. Starting no later than the middle school years, but preferably already in the upper elementary grades, youngsters should be taught to understand how their bodies and minds work, what helps and what hurts them, and how they can keep them strong and healthy.

Effective teaching, especially when educators and health professionals cooperate, can give children and young adolescents the kind of information that helps them make sound judgments on how best to lead healthy and productive lives. Adult mentors, along with teachers, can give youngsters a sense of the options open to them and a knowledge of the institutions to which they can turn to safeguard their health. Information, knowledge, and the skill to make intelligent decisions are essential antidotes to foolish, misleading advice from uninformed peers or the lore of the street. The positive approach, moreover, is far more effective than reliance on fear.

Instruction in health can be an integral element of life sciences education for

James Comer Recalls

"At the point of greatest need in our complex society, we abandon our children and adolescents. When our youngsters were in elementary school, we lived in a suburban community just outside New Haven where people greatly valued education.

When we went off to the PTA meeting or to the open house every year, we had to go very early or you could not find a parking space. It was just packed.

When we went to middle school, you did not have to go early because there were plenty of spaces. When we went to the open house in high school, it was an absolutely empty lot.

We abandon the young people at adolescence at the time when the negative peer group cultures are beginning to pull in ways that can be very troublesome. During that time, young people do tell us to go away, but they do not mean too far."

— James P. Comer
Crossroads conference

Governor Kean's Story

"When I was a young teenager, I had a terrible stutter. Because of that, I had a great deal of difficulty socially and in every other way. I used to avoid answering questions in class because it was so embarrassing. As it turned out later, I also had a mild touch of dyslexia although nobody knew it at the time. . . . I was written off by an awful lot of people as somebody who was not going to succeed. . . .

There were a couple of teachers, one in particular, who just decided this was somebody they were not going to give up on. They went far beyond anything they were paid to do. They spent long hours with me after class and helped me gain some self-confidence by showing me in every way that I could be just as important and have as much self-esteem as anybody else. These teachers were as responsible as my parents or anybody else for anything I have been able to do since. . . .

If we can get kids mentored by adults who show them that they care about them as human beings, then we will have done an awful lot to solve a number of problems. . . ."

— Thomas H. Kean
Crossroads conference

every student. *Turning Points* could not promise that good health would guarantee that students will be interested in learning, but it found ample evidence that, "in the view of 70 percent of all U.S. teachers, poor health and undernourishment are problems for their students."

A Program in Human Biology was introduced twenty years ago by Stanford University at the undergraduate level and became one of the most sought-after majors. It integrates the biological and behavioral sciences with informed attention to human health. Now being adapted with Corporation support to the junior high/middle school level and called the Middle Grade Life Sciences Curriculum Project, it reverses the traditional approach to teaching basic science: instead of beginning with the study of plants and animals, the project focuses on human beings.

Human biology responds to teenagers' natural curiosity about the world around them and, in particular, the changes that are taking place in their own bodies and emotions. Understanding may not provide ironclad insurance that adolescents will not take unnecessary risks, but it is preferable to ignorance.

And ignorance clearly needs to be dispelled. For example, as reported in *Fateful Choices*, a 1989 survey conducted by the Division of Adolescent and School Health of the Federal Centers for Disease Control showed that 12 percent of 8,098 students from 122 selected schools thought that birth control pills provided some protection against the HIV virus, and 23 percent believed that it was possible for them to tell by looking at a potential partner whether he or she was infected. Moreover, only 33 percent of students who said they had engaged in intercourse reported they always used condoms — a percentage that declined steadily with advancing age, to 26.4 percent by the twelfth grade.

The Alan Guttmacher Institute reports that, although AIDS/HIV education is increasing, it is still not offered in all secondary schools.

Fateful Choices recommends that all upper elementary and middle schools offer at least two years of health and/or life sciences education for all young adolescents. Schools are urged to introduce instruction in the life sciences as part of the core curriculum to teach teenagers how their bodies and minds develop and work. Such instruction should also deal with the importance of proper nutrition and exercise and with the harmful consequences of substance abuse. An understanding of the reproductive system can help to discourage premature and irresponsible sexual activity and impress teenagers with a new urgency in the avoidance of sex-related risks in the face of the life-threatening, growing incidence of AIDS.

Any sound educational approach needs to make it clear that family planning covers much more than birth control and the avoidance of unwanted pregnancies; young people need to be helped to perceive that raising a family can be exciting and satisfying when they are mature enough to understand its responsibilities, as well as its joys.

In perhaps oversimplified terms, a media campaign by the National Urban League sent a message to teenage boys, "Don't make a baby if you can't be a father."

At best, this can be a step forward. In some ways, positive messages in family life education may appear to be upset-

ting to youngsters whose own experience is tragically different. Is it fair to describe the caring and supportive role of a father to a teenager who is growing up in a fatherless household? And yet, it is the task of teachers and mentors to help youngsters understand what family life can be like. When family planning is explored as a part of the adolescents' capacity to make personal decisions about their own future family life, issues of how to prevent unplanned pregnancies, unwanted children, and sexual intercourse with untrustworthy partners will not appear either so controversial or so difficult to teach.

All of this is a long way from the "traditional" sex education that H. Craig Heller, chairman of the Program in Human Biology at Stanford, criticized at the Crossroads conference for its boringly cautious approach to an exciting and vital subject. "There is nothing that says that you have to teach genetics by starting with pea plants," he said. "You can start with human genetics. . . . You can talk about cystic fibrosis and sickle-cell anemia. These are things that kids will get interested in. You don't have to talk about the life cycle by starting with mosses and liverworts."

An integrated human biology curriculum, he added, means "bringing it all together": when you talk about the nervous system, that is when you talk about drugs. When you talk about the heart, that is when you talk about fatty foods and cholesterol.

Barriers to Health Care

At present more than 5 million adolescents lack health insurance, and the policies of many who are insured do not cover the preventive health care that is so important for that age group.

Given teenagers' limited access to health care, the focus should be on the creation of school-related health centers. Unfortunately, as of 1991, according to the Center for Population Options, there were only 327 such centers in thirty-three states and Puerto Rico. It is estimated that these centers serve no more than 187,000 adolescents — fewer than 1 percent of teenagers between the ages of ten and nineteen.

More than half of the centers' users have no other source of health care, and in some centers in inner cities the proportion of teenagers without access to other health care is nearly 100 percent. Almost 40 percent of the users are completely uninsured.

A vital part of the implementation of *Turning Points'* recommendations is

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the provision of health services for adolescents. Anthony W. Jackson, program officer for Carnegie Corporation and principal writer of *Turning Points*, describes a variety of options for action: "One school established a school-based clinic in conjunction with a local medical center. Another coordinated existing school and health department agencies to provide the appropriate support. A third arranged for a full-time physician's assistant through the state health department, and the fourth created a partnership between the school and a group of family practice physicians."

Setting the stage for the discussion of adolescent health care at the Crossroads conference, Michael I. Cohen, chairman of the Department of Pediatrics at Albert Einstein College of Medicine, said: "For the past two decades, the majority of health professionals and virtually all health institutions considered American teens as being healthy. Thus, little organized activity was directed toward their medical needs . . . . Youth and their health problems were left behind. What emerged was a hodgepodge of drug prevention services, teen pregnancy programs, suicide prevention services, the free clinic movement, and about three dozen university-based adolescent medicine programs. . . .

"During this twenty-year time frame, many of the cohesive elements in the lives of adolescents eroded. . . . We saw middle and high school performance deteriorate . . . violence among teens escalated, crack cocaine use was substituted for heroin addiction, unwed and unintended pregnancies skyrocketed, sexually transmitted diseases became endemic with the reemergence of syphilis and the introduction of the AIDS virus into the ranks of adolescents, sexual abuse rose dramatically, and morbidity from serious chronic organic diseases progressed unabated. . . . The limited number of extant programs in adolescent health had trouble surviving and were often overwhelmed."

In its 1991 three-volume report, *Adolescent Health*, partly financed by the Corporation, the Office of Technology Assessment of the U.S. Congress emphasized the potential of school-linked clinics and community-based multi-service adolescent health centers for the improvement of adolescent health. They are designed to respond continually to teenagers' needs. They are user friendly. They remove many of the barriers that block adolescents' access to health care. And they are committed to cooperation with a comprehensive health education curriculum.

Along the same lines, Thomas H. Kean, former governor of New Jersey and now president of Drew University, spoke to the conference about the importance of providing health care for adolescents that is as easily accessible as possible. He pointed to New Jersey's school-based youth service program that affords teenagers "one-stop shopping." This is especially important for poor and working families, and for those with limited education, who are frustrated by a system that requires teenagers and/or their parents to deal with many separate bureaucracies, often at some distance from each other.

Each one-stop center provides mental health and family counseling, health and substance abuse services, information and referral services, and recreation. Many of the centers, Kean said, provide child care, transportation, and hotlines that teenagers may call if they are in trouble. To underscore the connection between health and a variety of other needs, the centers were deliberately designed to deal also with job and career counseling, employment, and other social services.

Citing as an example the success of one school-based service site in the Pinelands Regional District, an area of rural poverty, Kean reported that, in 1990-91, school suspensions declined from 322 to 73, dropouts decreased from 78 to 24, and teen pregnancies, from 20 to 13, with only 1 occurring in 1991-92.

At a Minimum

"At a minimum, a decent minimum, if you cannot get the one-stop shopping that is so well done in New Jersey and that ought to spread, but short of that or in the meantime until the doctor comes, until the good public policy comes, we could at least have one site in every community that has all the practical information about adolescent services and opportunities, one visible, attractive site where it would be easy to find out what is available in or near this community."

— David A. Hamburg
Crossroads conference

In Hackensack, a conflict resolution program organized by a school-based youth center reduced students' fights from 172 to 32 in a three-year period.

"What it has demonstrated is that when you provide these kinds of services in a convenient place for the kids, they take advantage of them," Kean said. "It has helped thousands of adolescents and families. It has helped kids stay in school and be productive." But, he warned, school-based youth and health services cannot be established and operated out of existing resources. "Don't put [the money] in the Department of Education," he advised. "[In a fiscal crisis,] it's the first thing to be cut. It goes way ahead of cutting athletics. It goes way ahead of cutting driver education. . . . In New Jersey, we learned to put it in the human services budget. And once we got it in that budget, it stayed."

M. Roy Schwarz, senior vice president for medical education and science at the American Medical Association, called attention at the conference to *Code Blue: Uniting for Healthier Youth*, published jointly by the National Association of State Boards of Education and the American Medical Association. Such cooperation between two leading educational and medical associations in the advocacy of school- or community-based adolescent health centers represents an important step forward.

"We called the report *Code Blue* because it reflected the crisis we see," Schwarz said. "Code blue" is the call issued at hospitals in response to a serious emergency. He urged that any projected health care legislation include "comprehensive, compassionate, confidential health care and health education" for adolescents.

"Comprehensive" is a key word. In the general discussion at the conference, Philip Coltoff, executive director of the Children's Aid Society, said: "For adolescents especially . . . the issue of health, whether it is preventive health or curative health, has to be coupled with all of the other kinds of activities that young people want and need. In fact, we start [in the society's school-based service centers] at seven in the morning with breakfast and end with dinner at seven-thirty, and the buildings are open until nine at night. In that respect it is a seamless program."

He stressed that access is inadequate if the health centers operate only until five o'clock in the afternoon and only on weekdays. To be fully successful, he said, "they have to be available evenings, and they have to serve not just the young adolescents but their siblings and, where possible . . . the adults in the families as well. They would have to be open on weekends because that is when people need us."

Financing access to adolescent health care is an obvious hurdle. Starting new facilities or expanding existing ones is costly, and while many pilot projects begin with private funding, in the long run, more is needed. Coltoff said: "Private foundations cannot just support those undertakings. It has to be shared dollars with the public side. We felt in our case in New York that we should start privately, so as not to set ourselves up with additional problems with public funding and the restrictions that come with that in the initial stages. We know that down the road it's going to require a general kind of mix."

Lorraine Tiezzi, director of the Community Health and Education Program at the Center for Population and Family Health at Columbia University, who works with New York City public schools in the Washington Heights district, told the conference that private funders want to support special programs in the school-based clinics, but "nobody really wants to fund the basic service that is the reason why the children come to the clinic. . . . We need to get that money from the state and federal governments."

Entirely apart from financial and organizational issues, the establishment and operation of health centers or clinics must clear other high hurdles. As Susan

Going Backwards

"In Chicago, twenty years ago, there were twenty-two family planning clinics on the South Side that served teenagers. Today, there is one, open on Mondays between three and six. All of this means that in spite of all our efforts, there is a sense in which we are going backwards rather than forwards."

— Adele S. Simmons
Crossroads conference

Millstein said, "These clinics also find themselves fighting political battles with a small but vocal minority of people who find them threatening," because, in order to be successful, they must include in their service reproductive counseling, family planning and issues of birth control, and the prevention of sexually transmitted diseases.

Debra W. Haffner, executive director of the Sex Information and Education Council of the United States, pointed to attacks on health and sexuality education in many parts of the country: "There is a growing, determined radical right movement with focus on the family which fights the very idea of youth empowerment, tells us that teenagers don't have the right to make decisions, wants to stop school-based clinics, wants to stop sex education, wants to stop drug education, and wants to stop health education."

It would undoubtedly be easier to remove the obstacles to the creation of an effective and accessible adolescent health care system if its supporters spoke with a strong, unified voice. This is not the case.

As Hedrick Smith, independent journalist and former reporter for the *New York Times*, pointed out, "The list of special interest lobbies in the health field literally extends beyond the horizon. . . . The number is now 741. . . . There are at least twenty different groups representing different kinds of doctors, each one with a legitimate interest; but each one with a vested interest that says, don't touch what's precious to me. . . . Everybody complains about the status quo, and yet everybody has enough of a stake in it [not to want to change it]."

And beyond such vested opposition to change, Smith, too, underscored "the crossfire" of controversial issues involving human sexuality, sex education, abortion, and use of condoms and other contraceptives.

Since some of the opposition to both sex education and school-linked health services is launched by religious fundamentalists, it is important to note that strong support also comes from churches and religious organizations.

At the conference, Kenneth B. Smith, an ordained minister of the United Church of Christ and president of the Chicago Theological Seminary, urged churches to "confront the health care crisis facing our young people by declaring that there are no closed questions for discussion and interaction, including that of human sexuality. . . . I recognize that this will require for some religious bodies a profound theological culture change. We can no longer assume that all parents and families are the primary teachers in this area of human sexuality."

Dr. Smith listed a number of religious organizations "on the front line in dealing with adolescent health crises today":

- The Church Connection Project in Durham, North Carolina, involves the ministerial alliance in a program that encourages teenagers and adults to plan health-promotion and disease-prevention activities in church settings.
- The Congress of National Black Churches focuses on teenage academic achievement and motivation in forty church sites in six cities.
- The United Church of Christ in Chicago sponsors a program for black males stressing personal and community responsibility.

What emerges from this far-ranging discussion of providing adolescents with better health care is that there is no single agency able to solve the wide variety of needs. Families, schools (through teaching as well as actual health services), community health services and other facilities, and churches — all must play their part and, most important, cooperate. Without such concerted action, teenagers' health, habits, and future success are at serious risk.

Promising Results

"The Jackson, Mississippi, comprehensive health service center found that, between 1979 and 1990, more than 7,200 adolescents were served by the school-based program, and among 180 adolescent mothers only 10 had a repeat pregnancy, and pregnancy-related school dropouts decreased from about 50 percent to zero.

The Kansas City school-related health services reported a substantial drop in substance use during a two-year period. The program places high priority on teaching healthy lifestyles and discarding risk-taking behaviors through group and individual counseling."

— Joy G. Dryfoos
Crossroads conference

Alcohol, Drugs, Nicotine

In her recent book, *The Making of a Drug-Free America: Programs that Work*, Mathea Falco writes: "The way Americans think about illegal drugs contrasts sharply with the way we view the many different kinds of addictive drugs that are legally available in our society. The millions of Americans who abuse alcohol, tobacco, and prescription drugs such as Valium and codeine are thought to need help, not punishment."

She cites the numbers to underscore the point: An estimated 18 million Americans are alcoholics, and 55 million are regular smokers, compared to 5.5 million serious illegal drug abusers. Each year, more than 400,000 Americans die as a result of smoking-caused diseases and 200,000 from disease and accidents caused by alcohol. Deaths from all illicit drugs range from 5,000 to 10,000 annually. (These figures do not include the drug-related cost of violence.)

These statistics, while for the population as a whole, also raise the warning flag about risks facing teenagers. At the conference, Antonia C. Novello, the U.S. Surgeon General, reported that, of the nation's 20.7 million students in seventh through twelfth grade, 8 million drink alcohol monthly, and 454,000 have five or more consecutive drinks at least once a week. Many of those who go on such weekly sprees, Novello said, "are already alcoholics, and the rest may be on the way."

Contrary to popular belief, not only boys are problem drinkers. Of those who engage in binge drinking, 59 percent are male and 41 percent are female.

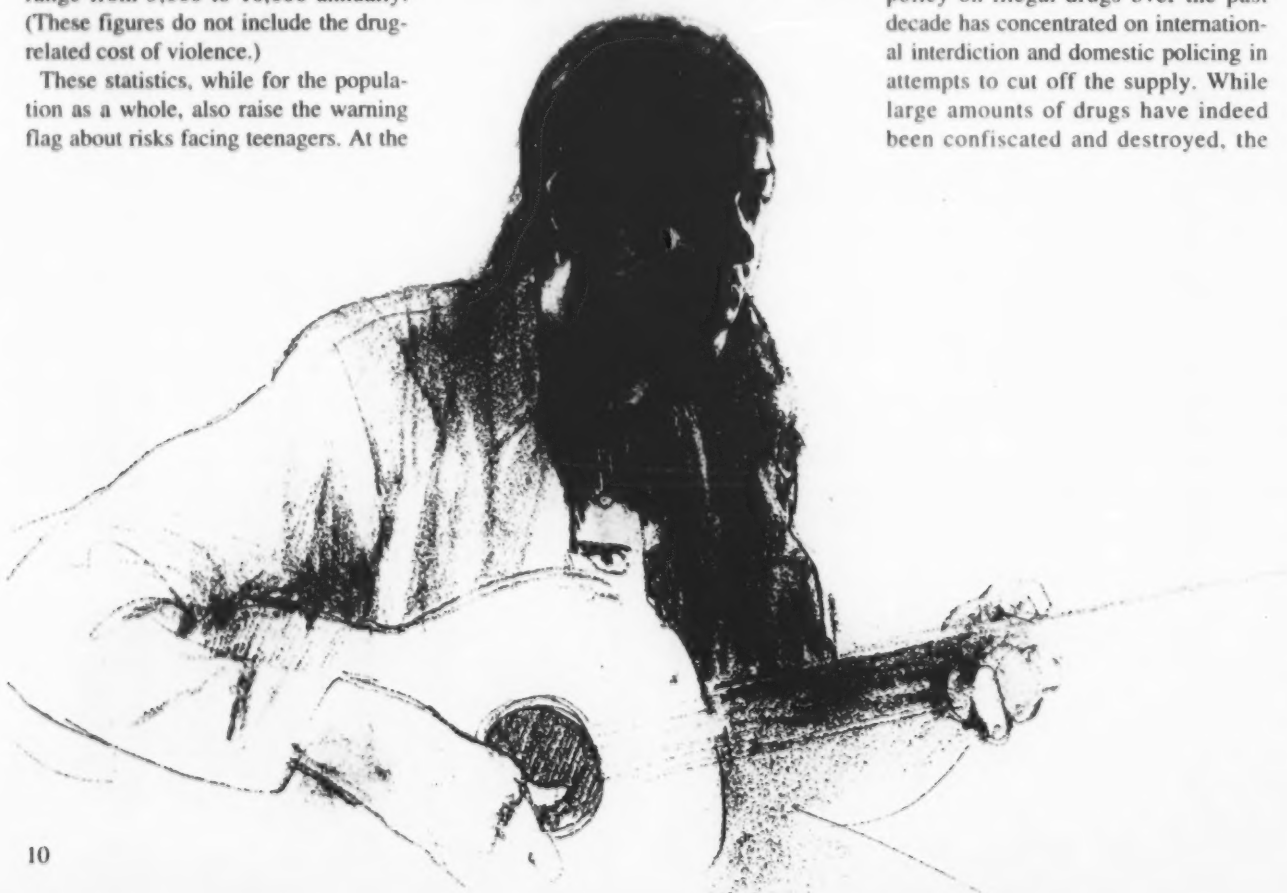
While alcohol has become the major drug of choice for adolescents, illegal drugs remain a serious problem, more so among white than among black teenagers. A study by the University of Michigan's Institute for Social Research, based on responses from 73,000 high school seniors, showed that more than 40 percent of those who were white had smoked marijuana during the one-year period under study compared to 29.8 percent who were black.

The figures for white and black girls were 36 percent and 18.4 percent, respectively. Nearly 12 percent of white boys, compared with 6.1 percent of blacks, had used cocaine. (These figures may require some adjustment because more black youngsters drop out of school before the senior year.)

There are compelling reasons why young black adolescents may turn away from using illegal drugs. Kevin Zeese, vice president for the Drug Policy Foundation, explained in *Fateful Choices:* "Black communities are faced with open drug dealing in their streets; they see the crime and horror associated with drugs."

There are no easy, magic ways to prevent substance abuse. "Just say no" clearly is not the answer.

On the negative side, government policy on illegal drugs over the past decade has concentrated on international interdiction and domestic policing in attempts to cut off the supply. While large amounts of drugs have indeed been confiscated and destroyed, the



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effect on drug use has been inadequate. With huge amounts of money and powerful cartels — often secretly supported by the military and even governments — involved in the trade, interdiction has had little effect. The emphasis, most experts now believe, should be on reducing the demand.

Mathea Falco points out that early prevention efforts failed because they relied on "scare tactics and moral exhortations." The result was loss of credibility. That approach was followed by the presentation of facts, largely through teachers lecturing about drugs, often with a blend of scare tactics. "While many of these programs increased teenagers' knowledge about drugs," Falco writes, "they had no appreciable impact on drug use."

Yet, there are some promising approaches. Education of the right kind and at the right time, beginning at sixth or seventh grade, around age eleven, can make a difference. To be successful, the approach must be tailored to teenagers' interests and concerns. What experts found, for instance, is that young teenagers worry more about the immediate than the long range: that smoking may make your breath smell bad (which will be offensive to the opposite sex) rather than that you may die of lung cancer many years later.

Actually, some progress has been made in reducing smoking among teenagers — except among girls. Unfortunately, cigarette advertising is often aimed at youths and particularly young women, telling them, for example, that they have come a long way by attaining the freedom to smoke in public. One reason why many young girls ignore the warnings about cigarettes' long-term threat to health is their preoccupation with being slim. Accounts by women who have gained weight after giving up smoking lead girls to view smoking as a way to curb their appetites.

Effective teaching remains an important antidote to at-risk behavior. Human biology, life science, and life skills training can have an impact by teaching youngsters, again preferably at age ten or eleven, how to avoid harm to their bodies and minds.

At the heart of life skills teaching is a process of encouraging behavior changes and action: Stop and think; get information; assess the information, always considering the consequences of actions; weigh old options or seek out new ones.

One caveat: such teaching requires persistence to be successful. Too many schools, while offering instruction, allow too little time and follow-through. A positive example is a program begun in the 1970s at Cornell Medical College under the leadership of Gilbert Botvin aimed at persuading middle school youngsters not to start smoking. The program, as cited in *Fateful Choices*, called for fifteen sessions in seventh grade, a ten-session booster in eighth grade, and another ten sessions in ninth grade. Subsequent studies showed that comprehensive education programs can prevent, or substantially reduce, the use of cigarettes and marijuana in early adolescence. The programs, however, do not help youngsters who are already habitual smokers, thus underscoring the importance of reaching children and adolescents at an early age.

Schools must reinforce such teaching by creating a healthy, drug-, alcohol-, and smoke-free environment. The home should do as much. Since passage of the 1986 Drug-Free School and Communities Act, Congress has appropriated $1.3 billion and distributed most of it to states, largely for the establishment of drug-free schools.

Television can be used effectively, as it is in "Degrassi Junior High," a public television soap opera/drama series aimed at young teenagers. It deals frankly with such problems as risky sexual activity, drugs, and alcohol, leaving the search for solutions to the adolescent audience.

In their chapter to appear in the forthcoming book, *Promoting the Health of Adolescents: New Directions for the 21st Century*, prepared for the Carnegie Council on Adolescent Development, Howard Leventhal and Patricia Keeshan stress the importance of promoting attractive, healthy alternatives to substance abuse. Poor minority youngsters, they say, must be shown how individuals from comparable backgrounds have "made it" in legitimate ways in recognizable contrast to "successful" drug dealers.

But beyond the direct approach to substance abuse prevention, adults — parents, teachers, health professionals — should understand that many teenagers engage in dangerous behavior because of a variety of developmental problems, such as low self-esteem, poor performance in school, depression, or inability to make decisions. This underscores the importance of treating the cause, and not just the symptoms, of at-risk behavior. Health services for teenagers must deal not only with physical problems but with mental and emotional danger signs as well. The kinds of middle grade schools prescribed in *Turning Points* are those that give adolescents a sense of security and belonging and the confidence-building reliance on an adult teacher-mentor. Adolescents' health, in other words, must be protected by the total environment.

Violence and Death

Virtually every day, the news includes reports of children and teenagers hurt or killed by aimless violence. They are victims, usually of gunfire, either as innocent bystanders or as participants in conflict. American adolescents are at much higher risk of being victims of gun-inflicted injury or death than are adolescents in all other industrial democracies.

During one month in 1991, twenty-

four youngsters aged sixteen or younger were shot in New York City, five of them fatally. As reported in *Fateful Choices*, researchers at the University of Maryland asked 168 inner-city teenagers about their experience with violence. Twenty-four percent said they had witnessed a murder; 72 percent knew somebody who had been shot. Two out of five black children on Chicago's South Side reported having witnessed a shooting, and one-fourth had actually seen a murder. In Washington, D.C., serious injuries, especially from handguns, among youngsters seen at Children's Hospital have increased 1,500 percent since 1986.

According to the Federal Bureau of Investigation (FBI), the number and severity of violent crimes committed by youths between the ages of ten and seventeen rose dramatically between 1965 and 1990. In the 1980s, the FBI found, youth crime shifted away from attacks on property and instead aimed at people in the form of murder, aggravated assault, and rape. The change is attributed in part to the dramatic rise in the use of crack cocaine.

Delbert S. Elliott, director of the Center for the Study and Prevention of Violence at the University of Colorado, told the *New York Times* of studies showing that 50 to 60 percent of crime is being committed by young people between the ages of ten and twenty. He ascribes the consequences of violent crime to the availability of firearms rather than to the sheer number of young offenders. The FBI's study found that the number of murders committed by young people with firearms rose by 79 percent during the 1980s.

Conflicts that used to end in fistfights are now increasingly settled with the use of knives and guns. Often shots are fired over the acquisition of material goods — leather jackets, running shoes, stereos — or in response to a verbal slight — "dissing" in the current slang.

As youngsters prove themselves in handling firearms, they are often hired by adults as drug runners. Teenagers are sought out by adult criminals because courts treat them more leniently.

Unfortunately, schools often fail to offer safety to their students. The National Adolescent Student Health Survey estimates that, based on a 1987 study, 338,000 students nationwide carried a handgun to school at least once during that year, and a third of those did so every day. Many say they are arming themselves for their own protection.

Handguns are readily available. Present gun control laws, not backed by any nationwide federal legislation, are ineffective. In addition, children and adolescents often obtain guns that are carelessly left in accessible places in their homes.

Can Violence Be Prevented?

In 1990, Carnegie Corporation funded the Education Development Center to hold a conference that would try to identify and assess violence prevention programs for young teenagers. The meeting urged greater efforts to "sell" the need for action by focusing on violence "as one of the most serious, life-threatening, injury-producing, dysfunctional forms of problem behavior."

While there is no foolproof way to prevent violence, some effective action can be taken. For example, Deborah W. Meier, principal of Central Park East Secondary School in East Harlem, a member of the Coalition of Essential Schools, has made a commitment to making the school violence free. The rules are strict, and everybody understands them. There is to be no fighting, under any circumstances. The only exception that allows students to fight back is when their life is in jeopardy.

A chapter by Felton Earls et al., "The Control of Violence and the Promotion of Nonviolence in Adolescence," prepared for CCAD's forthcoming book on adolescent health, proposes specific intervention programs that include direct approaches to gangs, the establishment of safe areas, the imposition and enforcement of effective gun controls, and the promotion of alternative activities, such as national service and job training for youths at risk.

A curriculum entitled Alternatives to Gang Membership, in Paramount, California, starts in fifth grade. It follows the children into middle school and also tries to involve the parents. At the beginning, half of more than 3,000 students said they were undecided whether to join a gang; at its conclusion, 90 percent said they would not.

In Boston, Deborah Prothrow-Stith, former Massachusetts commissioner of health and now assistant dean for government and community programs at Harvard's School of Public Health, has developed and taught violence prevention programs. Her project, which has become a national model, stresses positive ways to deal with anger and disagreements, shows how fights start and escalate, and offers nonviolent alternatives for the resolution of conflicts.

One lesson learned from the project is that intervention in classrooms only is not enough. The community must be involved. Efforts initially concentrated on predominantly black Roxbury, which has the nation's highest incidence of adolescent homicide, and on predominantly white South Boston. In each community, a trained educator carries the violence prevention curriculum to diverse audiences outside the schools: churches, housing projects, boys' and girls' clubs, health centers, and juvenile detention facilities. Pediatric nurses follow injured adolescents after their release from hospitals and work with them and their families in efforts to break the cycle of violence and revenge.

In the battle against violence, victory remains elusive. Prothrow-Stith said in *Fateful Choices:* "Many people don't think that violence can be avoided. They accept it as an inevitable part of life. We recognize anger as a normal

mentary, which aired in December 1989, "Private Violence, Public Crisis."

John W. Farquhar, director of the Center for Research and Disease Prevention at Stanford University, reported at the Crossroads conference that a comprehensive mass media approach to health risks has been able to change people's lifestyles in order to avoid cardiovascular diseases. In programs that reached 360,000 people in five cities in central and northern California, he said, the media mix consisted of newspapers, newsletters, booklets, and television and radio, in addition to education classes and lectures.

"The total hours of exposure over five years were twenty-six hours or about five hours per year. Keep in mind that the average adult is exposed to some 35,000 ads for various products during one year, amounting to 292 hours or twelve days of our time spent watching ads. A good proportion of those ads, perhaps as much as 20 percent or 25 percent, are for fast foods. . . . You might call this a David versus the Goliath of the counteracting ads."

Still, he reported, the effect of such programs was a 25 percent reduction in the risk of future heart attacks and strokes.

Yet, the positive potential of television and movies is more than offset by the violence of many of their programs, often with the effect of glorifying gun play. From an early age, children are conditioned to condone, and even admire, violence. Many cartoons aimed at very young children show violent action as a form of fun and amusement, with the implication that violence does not hurt. As children grow into adolescents, the violent content of TV intensifies, as does the time spent watching it. By the time they graduate from high school, many will have watched television for 22,000 hours, having been exposed to 18,000 televised murders and 800 suicides.

The National Institute of Mental Health found that an average of 80.3 percent of all television programs contain violent acts. Farquhar pointed to a study of three Canadian towns that showed a five-fold increase in violence after television was introduced.

The facts clearly suggest the need for interventions that, without resort to censorship, can improve the implied messages sent by television to its viewers, particularly the young. Prothrow-Stith has warned that, if violence prevention is to be successful, the television and film industry must be reached to change its ways. Marcy Kelly is trying to do just that. An experienced film and television producer and consultant who has dealt with such controversial topics as drug abuse, AIDS, and violence, Kelly is president of Mediascope, a not-for-profit organization founded in 1992 in Hollywood to promote social responsibility in the entertainment media.

She told conference participants that Mediascope will try to move into unofficial partnerships with writers, producers, and executives of film and television. "Conflict," she added, "will not be eliminated from the screen. It is . . . an important part of all great storytelling. However, conflict does not have to be irresponsibly resolved."

Kelly underscored her point: "Violence can be a last resort rather than the only option. Too often the realism of violence is ignored. It's antiseptic or dehumanized on the screen. Victims are not seen to feel pain, suffer from permanent disability, or leave a grieving family. Sometimes the hero is as violent as the villain." (The effect of the lack of realism on television is illustrated by a report from a Boston hospital: a teenager brought to the emergency room with gunshot wounds expressed surprise that they hurt.)

Kelly rejected the fatalistic attitude that nothing can be done, just because some of the top-grossing movies are also the most violent ones. To answer those who have given up on the possibility of change, she reported that three Corporation-sponsored meetings that brought together researchers on violence and aggression, network repre-

Violence of the Day

"Comparatively smaller numbers of teenagers read and watch news than do their parents. The fact is, most of the news they do watch, if it is local, for example, has to do with the latest violent crime that has been committed in their community, and often that crime was committed by or upon a young person. Newspapers are more diverse, but television is pretty universally dominated by either the latest murder, assault, rape, or drug-related act of violence of the day."

— Judy Woodruff
Crossroads conference

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and potentially constructive emotion . . . . But violence is, by and large, an unhealthy way to respond. We're working to teach them better ways. . . . Our children are killing each other because we teach violence. We've got to do something to stop the slaughter."

One approach is through peer education and mentoring — relying on respected older students to get young adolescents to understand the risks entailed in violence and gun play. The most promising programs are related to health education, such as Teens on Target (TNT), which emerged from the Oakland Safety Task Force in California, a coalition of parents, elected officials, and representatives of school and community agencies. TNT was created in 1988 after two shootings of junior high school students. High school students selected from different racial and ethnic backgrounds were enlisted as paid violence prevention advocates. They got special training in summer courses to give them leadership and public speaking skills and to familiarize them with problems of drugs, alcohol, and guns.

Early results were gratifying. One outcome was a joint neighborhood school project to establish a gun- and drug-free zone in and around the schools.

These and other efforts are only a small beginning in the battle against violence. The teaching of conflict resolution should become part of health education in elementary and middle schools. National policies to stop and reverse the proliferation of unlicensed guns are essential.

David Hamburg commented at the Crossroads conference, "I do hear from time to time. . . . 'Well, you know, some day, when we know more, we'll be able to intervene efficiently and at a lower cost, and let's wait for that day.' But we simply have to ask, how much preventable damage is going to occur in that length of time? . . . You can't let the perfect become the enemy of the good. . . . The right question to ask is, 'Can we do better than we are now?'"

"Violence can be reduced," declares Prothrow-Stith, "if America treats it as a public health emergency."

The Media Can Help Or Hurt

The media, and particularly television, can do much to improve children's and adolescents' behavior. The Children's Television Workshop has demonstrated that capacity with its pioneering creation of "Sesame Street" for young children. Subsequently, it produced a variety of programs to enhance learning in reading, writing, mathematics, and science.

In health promotion, too, television has been an ally in the battle against smoking. Neither television programs nor films today feature their actors lighting up, as they did only a generation ago. Boston's public television station WGBH supported local efforts to curb adolescent violence with a docu-

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sentatives, and prominent writers found strong support for the prevention of violence that was echoed at a meeting of the Caucus for Producers, Writers, and Directors.

Underscoring her optimism, Kelly concluded: "You may have noticed by the mid-1980s a dramatic shift to deglamorize drug abuse. Shortly thereafter, network policy changed to allow the discussion of the consequences of unprotected sex and to allow mention of contraceptives. Also, an emphasis on male responsibility for fathering a child began to creep into many scripts. By the late 1980s, sensitivity and accuracy in depicting AIDS, and persons with AIDS, was realized in many comedies and dramas. None of this happened by accident."

Adolescent Health Is No Accident

If, as the experts have shown, the condition of teenagers in America amounts to a public health emergency, remedies must come from many directions. Access to health care is crucial. So is avoidance of health-threatening behavior, such as premature, unprotected sexual activity, smoking, drug and alcohol abuse, and violence. Their relationship to school failure must be understood. The high incidence of teenage depression calls for early attention to mental health. Poverty and lack of jobs and economic opportunities destroy young people's sense of their future. Government and business should provide internships and apprenticeships that lead to permanent employment.

In opening the conference on adolescent health, David Hamburg said: "Our schools as well as our hospitals and our streets are littered with avoidable casualties. The time has indeed come to stop the killing, stop the maiming, stop the enormous waste of talent and loss of human potential. Adolescence in particular is a time of great risks and great opportunities. Its onset is a crucially formative phase of development beginning with puberty, about as dramatic a biological upheaval as ever occurs in a lifetime. . . .

"It is a stressful time for adolescents and their families, rich and poor alike.

. . . Particularly the early adolescent years to which we draw attention, ten to fifteen years of age, are open to the formation of behavior patterns in education and health that have lifelong significance. . . . Becoming alienated from school and later dropping out, starting to smoke cigarettes, drink alcohol and use other drugs, starting to drive automobiles and motorcycles in high-risk ways, not eating an appropriate diet or exercising enough, risking early pregnancy, and risking sexually transmitted diseases are all dangerous patterns. . . . Before damaging patterns are firmly established, we have a major opportunity for intervention to prevent later casualties in education and in health."

That is the mission of the Carnegie Council on Adolescent Development and of Carnegie Corporation. Satisfaction with the status quo endangers the mental and physical well-being of all whose lives cry out for change. "Do-nothing" or "Do-too-little" attitudes threaten the futures of the young whose lives are still unfolding. To seek remedies for conditions that put young people at risk is costly in both resolve and money, but such expenditures pale in significance in comparison with the cost of neglect. Young adolescents at crucial crossroads in their lives must be helped now to avoid risks to their health and future well-being. To safeguard their health is not an act of charity; it is a reaffirmation of a humane society and an investment in the nation's future. ■

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